**Practical No: 7**

**Aim:** Find the Sum of Digits in a Number

**Course Outcome:** Write ‘Python’ programs using arithmetic expressions and control structure.

**Theory:** The while loop in Python is used to iterate over a block of code as long as the test expression (condition) is true.

We generally use this loop when we don't know the number of times to iterate beforehand.

**Syntax of while Loop in Python**

while test\_expression:

Body of while

In the while loop, test expression is checked first. The body of the loop is entered only if the test\_expression evaluates to True. After one iteration, the test expression is checked again. This process continues until the test\_expression evaluates to False.

In Python, the body of the while loop is determined through indentation.

The body starts with indentation and the first unindented line marks the end.

Python interprets any non-zero value as True. None and 0 are interpreted as False

**Requirements: Computer, Python 3.3.34, Vs Code.**

**Flowchart:**

**Program:**

Num = int(input("Enter a Number: " ))

Total = 0

while(Num>0):

    Digit = Num % 10

    Total = Total + Digit

    Num = Num//10

print("The Sum of the Digits: ", Total)

**Output/Result:**

Enter a Number: 4561237

The Sum of the Digits: 28

**Conclusion: Hence, by using the while loop we have calculated the sum of the digits in the number.**